REMARKS

The Examiner maintained the rejection main claims 21 and 29 as being obvious based on Adams in view of Hamlin. The applicant respectfully traverses this rejection.

The Examiner has not suggested that Adams or Hamlin teach the feature argued by the applicant, i.e. that a single channel is transmitted to a specific communications interface, but indicated that this was not a limitation of the claim. The claims have been amended to include this limitation. The applicant respectfully submits that the claims so amended are allowable.

As previously noted, in Adams a specific modulator (channel) in the modulator array 70 is selected to receive a specific media asset input from a specific media server 72 (column 7, lines 52-56), but the modulated media signals are combined – each in its own frequency band – for transmission to the subscriber (column 11, lines 53-55). The subscriber can then receive that particular media input only by *tuning the set top box to the selected channel* (column 7, lines 56-59). In the system of the present invention, once the command for a channel is sent to the server there is only one channel that can be received by the subscriber; no channel selection is required, no theft of other channels can take place, and all of this can happen over twisted pair telephone wire, **which is not the case with Adams**.

Thus, the applicant submits (and the Examiner has not disagreed) that there is a significant difference in the fact that Adams does not transmit a single output signal to a specific communications interface as in the present invention – the Examiner has merely indicated that it was not a limitation of the claim. This feature is now a limitation of all the claims.

In short, according to the present invention the receiving device receives a single output signal from the redistributor. This allows the system of the invention to be used over twisted pair telephone wire.

The Examiner asserts that it is well known to transmit large amounts of data over twisted pair telephone wire, such as in DSL service. The Examiner's assertion that it is known to transmit large amounts of data over twisted pair lines does not mean that *all* methods of transmitting video on a low-bandwidth wire are obvious. The question, as always, is *how* this is being done

by the invention, and in the case of the present invention it is being done on a completely different basis than Adams.

The Examiner is relying on Hamlin solely to show that the concept of providing signals other than VOD movies is known. In all other respects, the Examiner relies on Adams to reject the claims as obvious. Yet the Examiner does not deny that the present invention works differently than Adams. There are many advantages of the present system over Adams: for example, often DSL service cannot just be 'plugged into' a network because in many situations there are existing impediments to DSL service which would preclude a system such as Adams, where the system of the present invention will work; Adams system sends multiple channels to the subscriber, making possible the theft of channels, whereas according to the present system the subscriber only receives one channel and therefore has no access to other channels; and the present system can handle more channels – a virtually indefinite number of channels in fact – because the signals are separated *at the head end*, whereas there is a finite (and relatively low) limit to the number of channels available to subscribers using Adams' system, because there is a limit to the number of channels that a twisted pair telephone wire can carry irrespective of compression and/or modulation techniques used, especially given the large data demands of high definition video signals.

The Examiner argues that Adams' server does control the output channel selection. However, in Adams the server is a video server, and the *server* itself does not control the output channel selection, it actually outputs the signal. The output channel selection is *controlled* by the Connection Management Agent, which is what Figure 7 of Adams describes.

But in the end, the fact of sending a single output signal to the subscriber renders the invention patentable. The Examiner concedes that in Adams it is the combined signal outputs from multiple media servers 72 that is output to the node 26 (column 8, lines 3-13). Adams has no choice but to use a high bandwidth transmission medium such as coaxial cable or optical fibre to distribute the signal. Adams' signal simply could not be transmitted over twisted pair telephone lines, because it requires more bandwidth than that medium can handle, which means that his system has the disadvantages of all prior art systems which are overcome by the present invention. With respect, the Examiner's assertion that this is moot because a low-bandwidth

system is not claimed is simply not correct; in fact, a low-bandwidth system *is* being claimed, because a low-bandwidth system is the result of the recited structure of the present invention. It does not matter whether or not the actual words 'low-bandwidth' appear in the claim. The structure and method of the claimed invention, particularly with the claims as presently amended, provides a low-bandwidth system.

As previously noted, in Adams the head end must massively duplicate signals that are sent to the distribution hubs. Thus, there is a huge overhead in the signals sent downstream. This is easy to do using a high bandwidth medium such as fibre, but is severely limited with twisted pair telephone wire because that medium cannot handle that bandwidth. In the system of the present invention this redundancy is eliminated; the server subsystem is optimized to transmit only the precise data request made by end users. **The present invention separates the subscriber-selected channel out at the head end, not at the subscriber end, which is what Adams does.** This is a completely different concept, and allows the present system to operate a full high definition video system over a single twisted pair telephone wire.

The Examiner asserts that he can characterize Adams' CMA as a processor because the purpose of the processor is not specified in the claim. However, method claim 29 recites the step of "processing the input signals to a format suitable for switching," which explicitly recites a processing step that does not occur in Adams. Furthermore, if the Examiner characterizes Adams' CMA as a processor, where is the switching device recited in claim 21? The applicant again submits that Adams does not have a processor for processing the signals for switching because each of Adams media servers 72 is identical, and therefore each signal output to the combiner is in exactly the same format.

Ultimately, Adams is a completely different system from the present invention and no combination of Adams or any other prior art can result in the claimed invention. Main claims 21 and 29 have been further amended to clarify the critical distinction that the server controls ***a single output channel selection*** of the input signals responsive to subscriber control signals. The bandwidth required for the system of the invention is a small fraction of the bandwidth required to operate Adams' system. The applicant submits that these differences in the structure and

operation of the present invention and the significant advantages that they provide patentably distinguish the invention over the prior art.

The applicant accordingly submits that the claims as present written patentably distinguish the invention over the prior art.

Claims 23-25, 28, 31-33 and 36 have been cancelled.

Favourable reconsideration and allowance of the subject application are respectfully requested.

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